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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/164,216 09/30/98 PASQUALINI

R NSC1-D8400

EXAMINER

MM91/1018

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NADAV, D

ART UNIT

PAPER NUMBER

2811

DATE MAILED:

10/18/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/164,216

Applicant(s)

Pasqualini

Examiner

ORI NADAV

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 10, 2001
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15, 19, and 38-44 is/are pending in the application.
- 4a) Of the above, claim(s) 40-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15, 19, 38, and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Election/Restriction

1. Applicant elected the embodiment of figure 16 in Paper No. 21. Claims 40-44 do not read on the embodiment of figure 16. Therefore, claims 40-44 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected subcombination, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15, 19 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gens et al. (5,515,225) in view of Admitted Prior Art (APA). Gens et al. teach in figure 2 a semiconductor chip having a substrate (figure 4, the external line encircling R1) of a first conductivity type, the chip comprising a plurality of pads P1, P2, an ESD negative ring R2, a plurality of ESD positive lines (the horizontal lines located between the high power supply terminals (the square blocks indicated as

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VDD1 and VDD2) and the line connecting the two diodes. See also column 3, lines 32-49) not being connected to a steady voltage source and not being electrically connected to each other and not encircling the periphery of the chip, a plurality of switches (diodes) connected between the ESD positive lines and the ESD negative ring, and a plurality of first and second diodes D1, D2 connected to a pad and the negative ring and positive line, respectively.

Although Gens et al. do not explicitly state that plurality of switches are connected between the ESD positive lines and the ESD negative ring, this feature is inherent in Gens et al.'s device, because it is well known in the art that diodes are switches, of which official notice is taken. Therefore, Gens et al. teach plurality of switches being connected between the ESD positive lines and the ESD negative ring, as claimed. Thus, Gens et al.'s structure is considered to be at least obvious over the claimed structure.

In the alternative, APA teaches in figure 1 a plurality of ESD switches including a transistor (figure 2) connected to the positive line and to the negative ring, respectively (page 2, lines 24-27).

It would also have been obvious to a person of ordinary skill in the art at the time the invention was made to connect plurality of ESD switches between the positive line and the negative ring in Gens et al.'s device in order to provide more effective unidirectional flow of current during ESD operation.

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Regarding claim 19, Gens et al. teach in figure 4 a negative line encircling the periphery of the chip.

Regarding claim 39, APA teaches in figure 2 a plurality of ESD switches including a transistor. It would also have been obvious to a person of ordinary skill in the art at the time the invention was made to use a transistor as an ESD switch in Gens et al.'s device, because it is well known in the art to use a transistor as an ESD switch, of which official notice is taken.

Response to Arguments

4. Applicant argues on page 4 that no ESD positive lines could be found in Gens et al.'s structure.

The examiner described in greater length (section 3) which lines in Gens et al.'s structure are the ESD positive lines.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

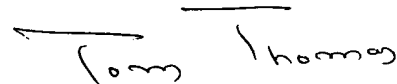
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Papers related to this application may be submitted to Technology center (TC) 2800 by facsimile transmission. Papers should be faxed to TC 2800 via the TC 2800 Fax center located in Crystal Plaza 4, room 4-C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Group 2811 Fax Center number is (703) 308-7722 and 308-7724. The Group 2811 Fax Center is to be used only for papers related to Group 2811 applications.

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Any inquiry concerning this communication or any earlier communication from the Examiner should be directed to *Examiner Nadav* whose telephone number is **(703) 308-8138**. The Examiner is in the Office generally between the hours of 7 AM to 3 PM (Eastern Standard Time) Monday through Friday.

Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center Receptionists** whose telephone number is **308-0956**

A handwritten signature in black ink that reads "Tom Thomas". The signature is written in a cursive style with a horizontal line above the name.

**TOM THOMAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800**

Ori Nadav

October 10, 2001